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# UCC

**University College Cork, Ireland**  
Coláiste na hOllscoile Corcaigh

## LEANBH Project

**Learning to Evaluate Blood  
Pressure at Home**



**Shifting the dial towards  
greater success on messy  
software projects**

IT Architects Conference 2017

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Croke Park Conference Centre, Dublin 9

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# The Role of the IT Architect ...

The IT Architect is the organization's  
technology strategist

Works with stakeholders to build a holistic view of the organization's strategies, processes, information, and information technology assets

Ensures that technology strategies support business needs

Contextualizes technology projects within the business and the overall technology infrastructure

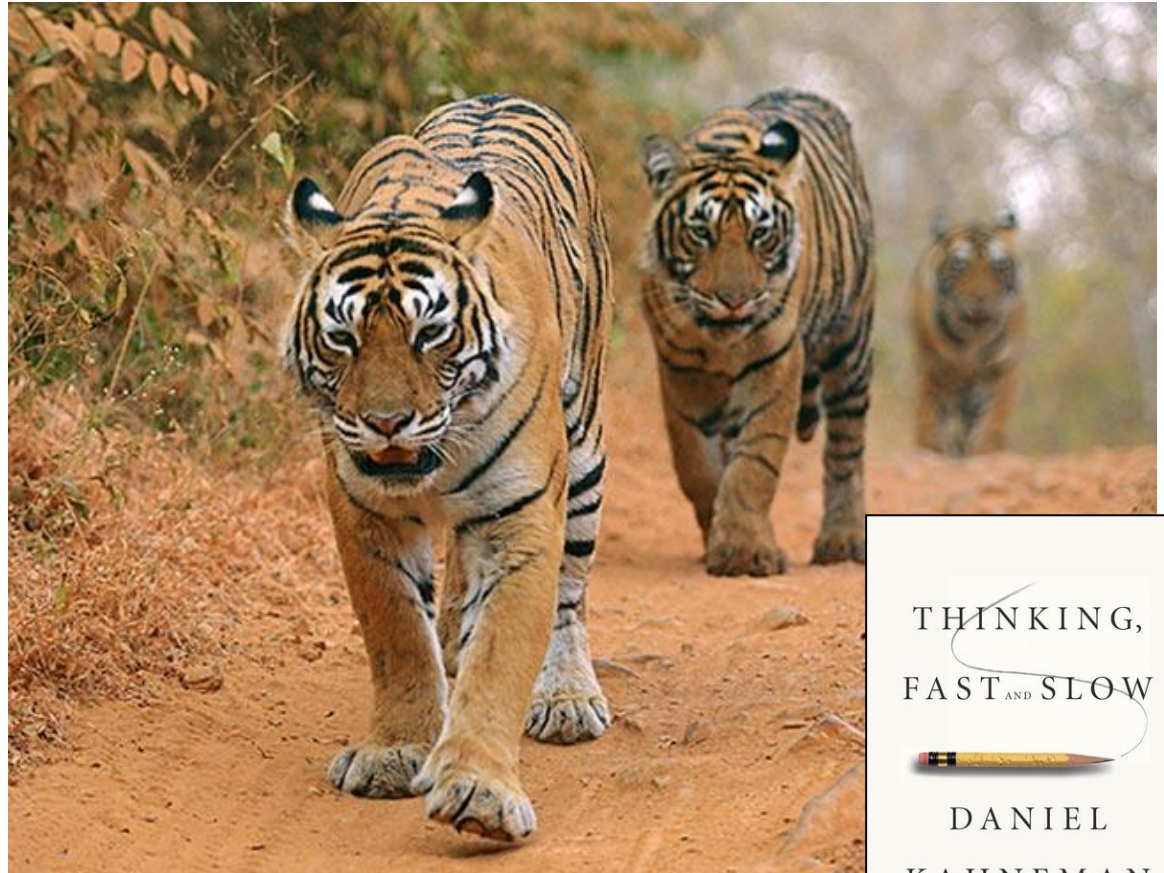
Helps the business realize bottom-line business value through technology

**IT architecture is the art and science of designing and delivering valuable technology strategy.**

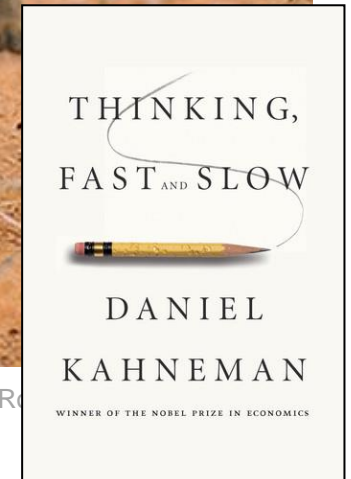


# Wired to survive but ...

Human beings are illogical and irrational. For most of our existence, survival required that we think quickly, not methodically. Making a life-preserving decision was more important than making an accurate one. This has meant that the human brain has developed an array of mental shortcuts.



Source: <http://www.jagdeeprajput.com/Latest%20Large/Approaching-R>



# Doing it right but ...



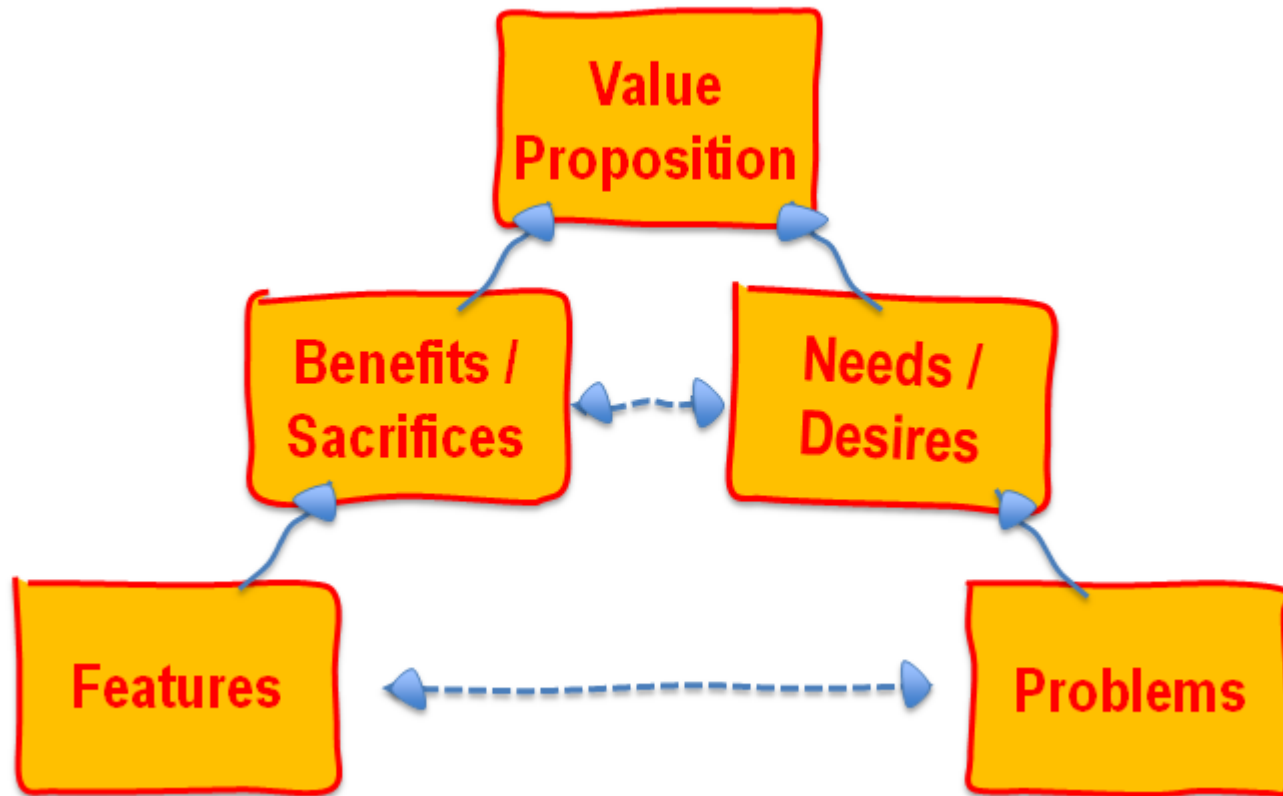
Source: <https://salesbenchmarkindex.com/insights/hit-the-number-with-the-right-balance-of-strategy-and-execution/>

# Tools, tools, tools, ...



Source: [http://www.toasto.com/?attachment\\_id=1357](http://www.toasto.com/?attachment_id=1357)

# Features-Benefits-Value Triangle





# Value for whom?



# The IKEA Example



Source: <https://www.pinterest.com/pin/378302437430139076/>

# Design is a Wicked Problem ...



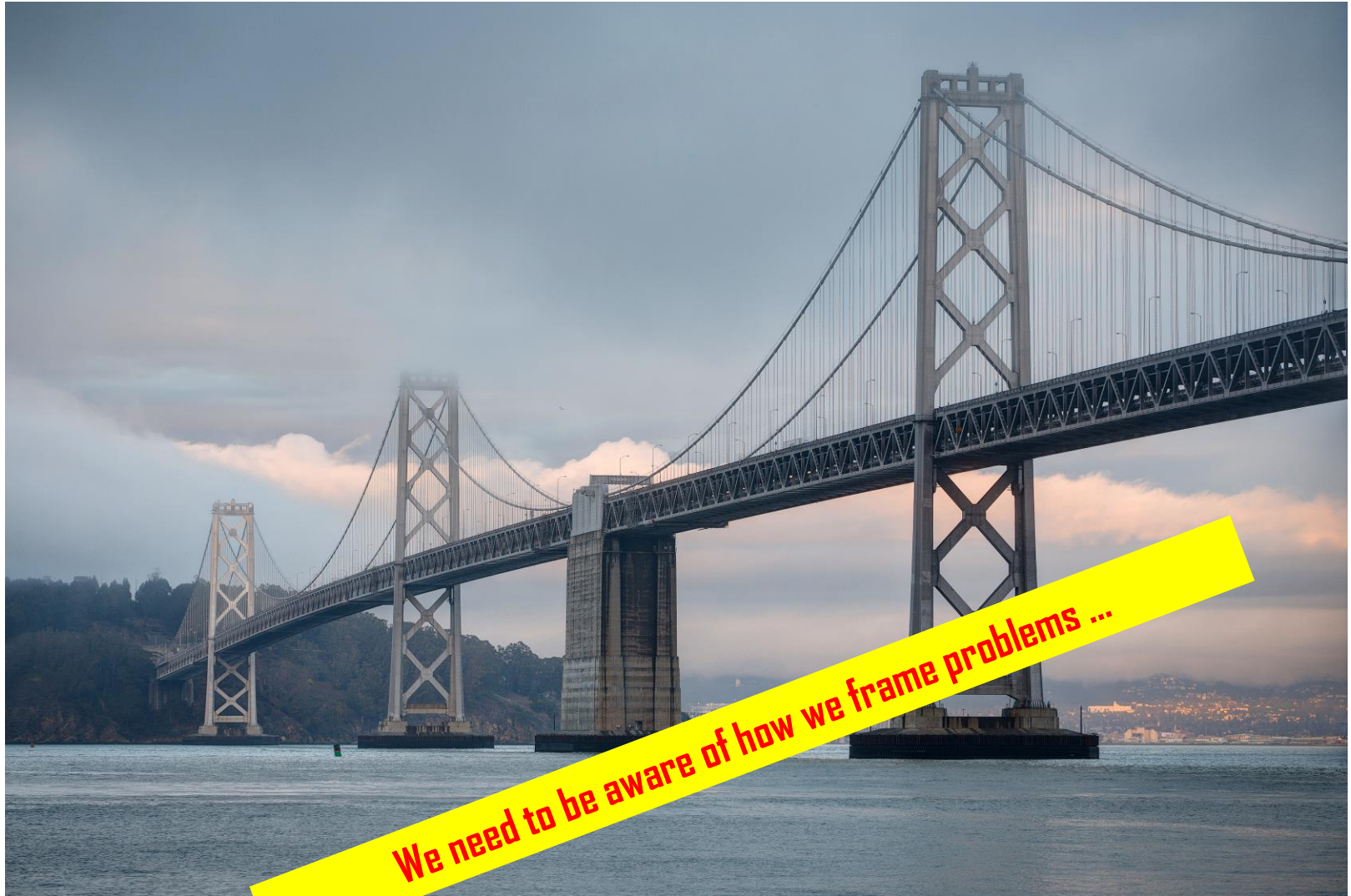
Figure 2 (How to recognize a wicked problem (based upon Rittel and Weber, 1973, 1984))

# Some Hard Lessons Learned





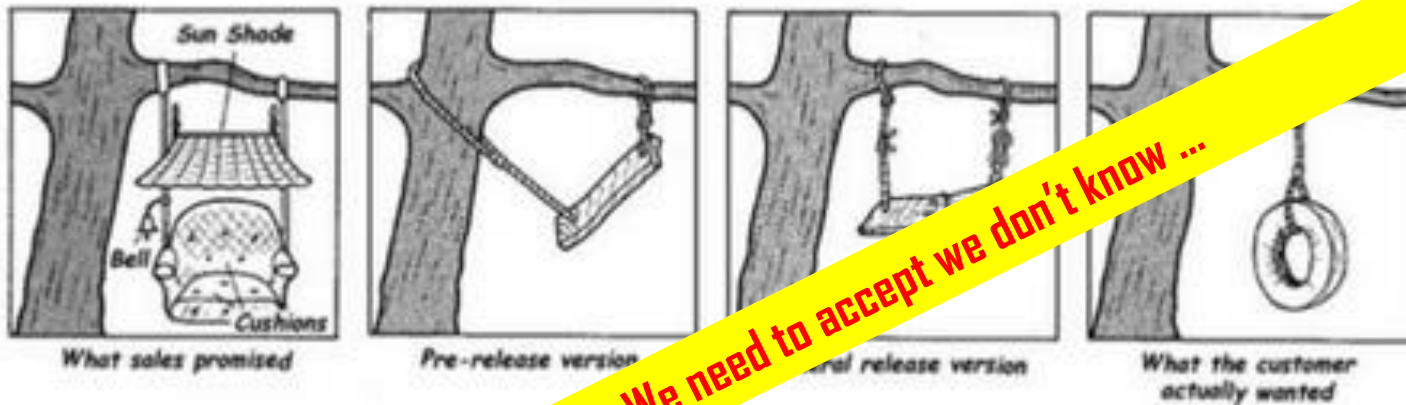
# Framing the problem ...



Source: [https://upload.wikimedia.org/wikipedia/commons/8/82/Oakland\\_Bay\\_Bridge\\_Western\\_Part.jpg](https://upload.wikimedia.org/wikipedia/commons/8/82/Oakland_Bay_Bridge_Western_Part.jpg)

# Mantle of expertise ...

*"My perspective is that the bulk of our industry is organized around the demonstratable myth that we know what we want at the start, and how to get it, and therefore build our process assuming that we will take an optimal, direct path to get there. Nonsense. **The process must reflect that we don't know and acknowledge that the sooner we make errors and detect and fix them, the less (not more) the cost.**" (Bill Buxton)*



# Falling into the Product Trap ...



Source: <http://2.imimg.com/data2/RX/XX/MY-4291542/oxygen-mask-250x250.jpg>



**We need to solve problems rather than create products ...**

Source: <http://www.youtube.com/watch?v=jmpOToLAP18>

# A quick case study ...



***"Empathy at the beginning is the heartbeat of the project as you begin to move forward"***

Source: <https://www.youtube.com/watch?v=jajduxPD6H4>



# Building empathy ...

## THREE PREGNANT DADS

FROM THE BOOK OF EVERYONE

THE HIGHS AND LOWS OF 3 DADS AS THEY TAKE ON THE WEIGHT OF BEING A 9 MONTH PREGNANT MOM FOR ONE MONTH



Source: <http://3pregnantdads.com/>

**We need to have empathy for the problems we solve ...**

# Wants versus Needs

We need to concentrate more on the *needs* of the customers and less on their *wants* ...



**We need to differentiate between needs and wants ...**

...  
Cheaper  
Easier  
with less damage  
for hanging pictures



# Voice versus Mind



In other words we need to focus less on the *'voice of the customer'* and more on the *'mind of the customer'*.

How can we get access to the *'mind of the customer'*?

**We need to get inside the head of our stakeholders ...**



# Creating a bias for doing ...



We need to be 'doing' in order to learn and learn early ...



# Failing in order to Succeed ...



*"Position yourself to  
fail small in order to  
Succeed Big ..."*

**We need to aim to fail rather than Fail ....**

# Focusing on points of failure



The jet black swan has arrived at Abbotsbury Swannery in Dorset and set up home with the resident 600 many of which are all white

**We need to zero in on the most likely points of failure ...**

# Prototype it – but which prototype



# Behaviour is the real issue ...



**We need to accept that behaviour is probably bigger than technology ..**

Source: [https://s3.amazonaws.com/images-akamai-prod-us-east-1/s3.amazonaws.com/stock.com/social-issues-drunk-drunkard-drunkenness-disorderliness-social\\_problems-amrn666\\_low.jpg](https://s3.amazonaws.com/images-akamai-prod-us-east-1/s3.amazonaws.com/stock.com/social-issues-drunk-drunkard-drunkenness-disorderliness-social_problems-amrn666_low.jpg)



# Challenging the status quo



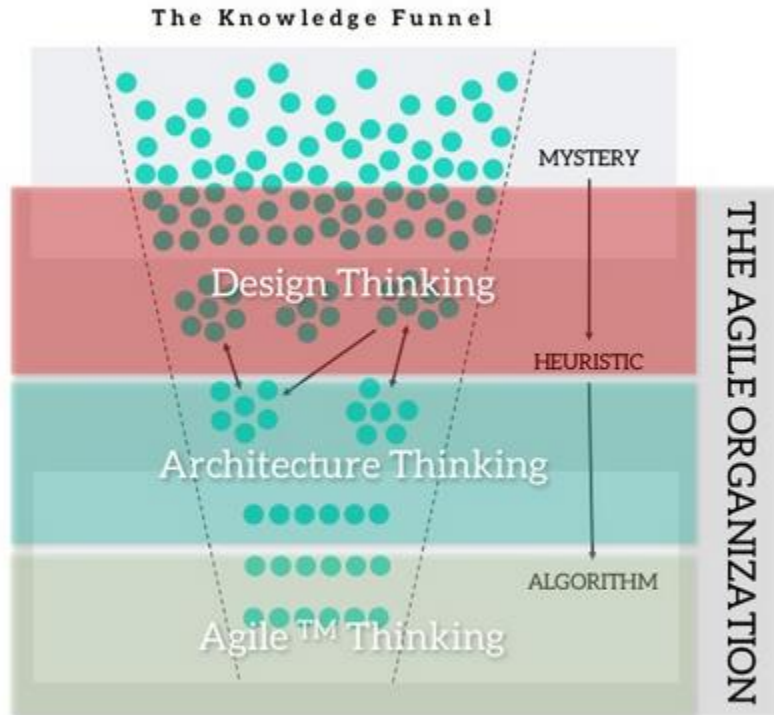
*"Just because things  
are the way they are,  
doesn't mean that is  
the way they should  
be"*

**We need to learn to grab the banana ...**

# Traversing the funnel ...

A Multi-Disciplinary Journey

HOW ARE PROBLEMS SOLVED?



No single discipline can traverse the funnel, it is a multi-disciplinary journey.

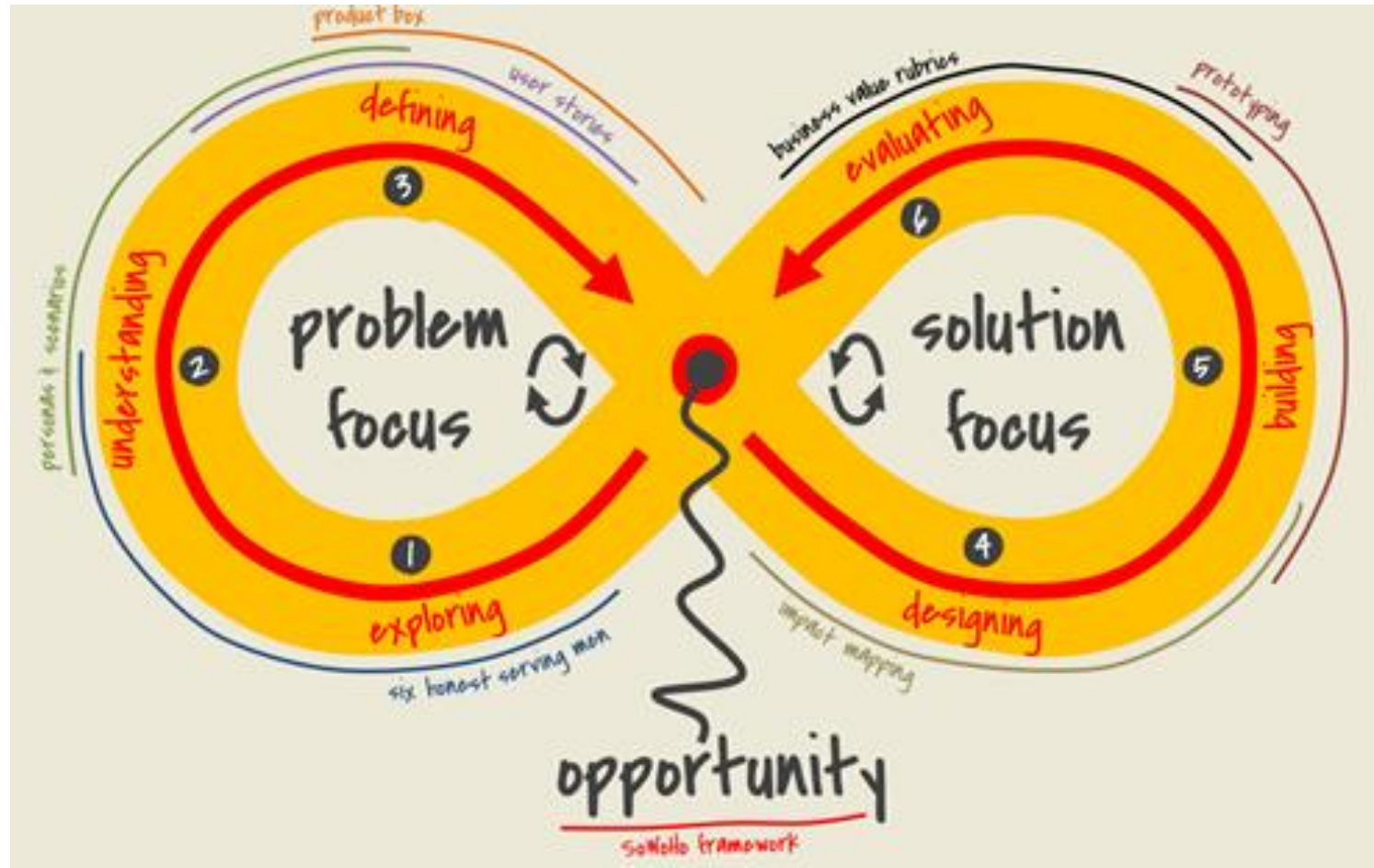
\* From Roger Martin (2009) *The Design of Business*



HYBRID THINKING - AN INTRODUCTION | VERSION 1 - IASA

Source: [https://www.slideshare.net/craigmartin/hybrid-thinking-the-missing-link?qid=fe4123ce-c7e7-4456-8fc8-c1b66468d456&v=&b=&from\\_search=1](https://www.slideshare.net/craigmartin/hybrid-thinking-the-missing-link?qid=fe4123ce-c7e7-4456-8fc8-c1b66468d456&v=&b=&from_search=1)

# A Process for the funnel ...





Moving from 'playing not to lose' to 'playing to win'

*Doing things right versus doing the right things.*

# Many Thanks

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 <https://ie.linkedin.com/in/paidioreilly>

Source: <http://funnyshit.com.au/img/not-my-job-redux.jpg>



## Bibliography

- O'Raghallaigh, P., McCarthy, S., and Adam, F. (2017) Sociomateriality: An Object-Inspired Proposal for IS Scholars. In Proceedings of the 25th European Conference on Information Systems (ECIS), Guimarães, Portugal, June 5-10, 2017 (pp. 1348-1362).
- McCarthy, S., O'Raghallaigh, P., Fitzgerald, C. and Adam, F. (2017) A Typology for Organizational ICT Practice. In Proceedings of the 50th Hawaii International Conference on System Sciences.
- O'Raghallaigh, P. and Adam, F., 2017. A Framework for Designing Digital Health Interventions. Journal of the Midwest Association for Information Systems| Vol, 2017(2), p.41.
- O'Raghallaigh, P., McCarthy, S., Woodworth, S., and Adam, F. (2016), Fictional Prototyping for Digital Transformation, Cutter Executive Update [Available at <https://www.cutter.com/article/fictional-prototyping-digital-transformation491606>].
- O'Raghallaigh, P., McCarthy, S., Woodworth, S., and Adam, F. (2016), Design Fiction for Near-Future Digital Solutions, Cutter Business Technology Journal [Available at <https://www.cutter.com/article/design-fiction-near-future-digital-solutions-492126>].
- Lane, S., O'Raghallaigh, P. and Sammon, D., 2016. Requirements gathering: the journey. Journal of Decision Systems, 25, pp.302-312.
- McCarthy, S., O'Raghallaigh, P., Woodworth, S., Lim, Y.L., Kenny, L.C. and Adam, F., 2016. An integrated patient journey mapping tool for embedding quality in healthcare service reform. Journal of Decision Systems, 25, pp.354-368.
- O'Raghallaigh, P., Sammon, D. and Murphy, C. (2012) Bringing some Order to the 'Black Art' of Innovation Measurement . In: Tadhg Nagle eds. The 6th European Conference on Information Management and Evaluation University College Cork, pp.243-250
- O'Raghallaigh, P., Sammon, D. and Murphy, C. (2012) Using Focus Groups to Evaluate Artefacts in Design Research . In: Tadhg Nagle eds. The 6th European Conference on Information Management and Evaluation University College Cork, pp.251-257
- O'Raghallaigh, P., Sammon, D. and Murphy, C. (2011) 'The design of effective theory'. Systems, Signs & Actions (An International Journal on Communication, Information Technology and Work), 5 (1):117-132.